

In the claims:

Substitute the following claims for the claims currently on file.

1. (Currently amended) A system for triggering a plurality of test and measurement instruments substantially simultaneously, comprising:
 - a first test and measurement instrument having a first input for receiving a signal under test, an output for developing a trigger enable signal, and an input for receiving a combined trigger signal;
 - a second test and measurement instrument having a first input for receiving a signal under test, an output for developing a trigger enable signal, and an input for receiving a combined trigger signal; and
 - circuitry for logically combining said trigger enable signals of said first and second test and measurement instruments to generate said combined trigger signal;
 - wherein each of said test and measurement instruments is coupled to said circuitry for combining via a cable connecting a respective pair of transceivers, and said trigger enable signal and said combined trigger signal are conveyed in mutually opposite directions through said cable; and
 - said first and second test and measurement instruments ~~acquiring~~ acquire data samples of said signals under test in response to said combined trigger signal.
2. (Currently amended) The system of claim 1, wherein said transceivers comprise:
 - a series combination of a variable impedance device, a switch and a constant current source; wherein:
 - said first and second test and measurement instruments having respective transceivers in which ~~the~~ a junction of said variable impedance device and said switch is adapted to transmit ~~effect transmission of at least one of~~ said trigger enabled enable signal and ~~said combined trigger signal.~~
3. (Currently amended) The system of claim 2, wherein said first and second test and measurement instruments have respective transceivers in which the junction an output terminal of said variable impedance device ~~and said switch~~ is monitored to ~~effect reception of~~ receive ~~at least one of said trigger enabled signal and~~ said combined trigger signal.

4. (Currently amended) A system, comprising:

a plurality of signal acquisition devices, each of said signal acquisition devices comprising an event decoder, for monitoring at least one respective input signal to determine whether a logical triggering event has occurred, and a transceiver, for transmitting an indicium of the occurrence of said logical triggering event and for receiving a trigger signal; and

a trigger controller, comprising a plurality of transceivers operative to receive said logical triggering event ~~indicia~~ indicium from each of said plurality of said signal acquisition devices, transmit said trigger signal, and a logical processing device for combining said logical triggering event ~~indicia~~ to produce therefrom said trigger signal.

5. (Currently amended) The system of claim 4, wherein said transceivers comprise:

a series combination of a variable impedance device, a switch and a constant energy source; wherein

~~the a~~ a junction of said variable impedance device and said switch is adapted to effect ~~transmission of~~ transmit said indicium of the occurrence of said logical event.

6. (Currently amended) The system of claim 5, wherein:

~~the junction~~ an output terminal of said variable impedance device ~~and said switch~~ is monitored to ~~effect reception of~~ receive said ~~triggering~~ trigger signal.

7. (Original) The system of claim 5, wherein:

said constant energy source comprises a constant current source; and

said variable impedance device comprises a transistor.

8. (Currently amended) Apparatus for use in a test and measurement instrument, comprising:

an event decoder, for monitoring at least one input signal to determine whether a logical triggering event has occurred, and generating a trigger enable signal in response thereto;

a terminal for receiving a conductor, said conductor coupling signals between said apparatus and an external device, said conductor conveying said trigger enable signal and a trigger signal in mutually opposite directions; and

a transceiver, coupled to said terminal, for transmitting ~~indiciu~~m of the occurrence of said ~~logical triggering event~~ said trigger enable signal and for receiving said trigger signal.

9. (Currently amended) The apparatus of claim 8, wherein said test and measurement instrument further comprising comprises an acquisition unit, for acquiring a plurality of said data samples from at least one input signal in response to said trigger signal.
10. (Currently amended) The apparatus of claim 8, wherein said transceiver comprises: a series combination of a variable impedance device, a switch and a constant ~~energy~~ current source; wherein ~~the a~~ a junction of said variable impedance device and said switch is adapted to ~~effect transmission of said indicium of the occurrence of said logical event~~ transmit said trigger enable signal.
11. (Currently amended) The apparatus of claim 10, wherein: ~~the junction an output terminal~~ an output terminal of said variable impedance device ~~and said switch~~ is monitored to ~~effect reception of~~ receive said ~~triggering~~ trigger signal.
12. (Currently amended) The apparatus of claim 10, wherein: ~~said constant energy source comprises a constant current source; and~~ said variable impedance device comprises a transistor.
13. (Currently amended) The apparatus of claim 8, wherein: said apparatus is used in each of a plurality of ~~signal acquisition devices~~ test and measurement instruments, each of said plurality of ~~of signal acquisition devices~~ test and measurement instruments using its respective transceiver to ~~transmitting~~ transmit a respective ~~indicia of logical triggering events~~ trigger enable signal and to receive said trigger signal.
14. (Currently amended) The apparatus of claim 13, wherein: said external device is a trigger controller; and each transceiver of each of signal acquisition devices ~~said test and measurement instruments~~ transceiver communicates with a corresponding transceiver in a said trigger controller, said trigger controller logically combining said ~~indicia of logical triggering events~~ respective trigger enable signals to produce said trigger signal.